

In the claims:

Please amend the claims as follows:

1-20 (cancelled)

1 21. (currently amended) A method of determining a parameter of interest of an earth
2 formation having a plurality of layers, the method comprising:
3 conveying a multi-component resistivity logging tool into a borehole in a selected
4 layer in said formation; and
5 using at least one transmitter receiver combinations ~~to provide~~ and providing a
6 measurement having selective sensitivity to the desired reservoir formation
7 properties parameter of interest.

8

1 22. (currently amended) The method of claim 21, ~~further comprising wherein the~~
2 measurement is used for at least one of: making multi-component measurements
3 ~~for at least one of~~ (i) geo-steering, and (ii) drilling assistance and well placement
4 decisions.

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1 23. (original) The method of claim 21, further comprising:
2 measurement of a multi-component array combined with measurement of at least
3 one of a gyro, accelerometer, magnetometer and inclinometer.

4

1 24. (currently amended) The method of claim 21, further comprising:

2 performing dual compensated measurement of a multi-component array to
3 improve at ~~lest~~ least one of signal to noise ratio and measurement stability and
4 signal content with reservoir, geological and geophysical information.
5

1 25. (currently amended) The method of claim 21, further comprising providing a
2 measurement at a plurality of measuring multiple frequency frequencies, and
3 using the measurement at the plurality of frequencies for determining the
4 parameter of interest. in at least one of sequentially and simultaneously; and
5 analyzing multiple frequency survey data for focusing interpretative data in
6 target formation parameters.
7

1 26. (original) The method of claim 21 further comprising:
2 performing multi-component transmitter receiver array measurements at different
3 orthogonal and non-orthogonal orientations comprising at least one of xy, xz, yz,
4 20°-40°, and 40°-90°.
5

1 27. (original) The method of claim 21 further comprising:
2 performing multi-component measurements combining measurement comprising
3 at least one of symmetric/symmetric, asymmetric/symmetric, and
4 asymmetric/asymmetric.
5

1 28. (original) The method of claim 21, further comprising:
2 using measurements for geosteering.

3

1 29. (currently amended) The method of claim 21, wherein providing the
2 measurement further comprises: further comprising:
3 measuring a time domain response; and
4 converting the time domain response into a frequency domain response, and
5 ~~selecting a frequency spectrum of interest for analysis.~~

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1 30. (cancelled)

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1 31. (cancelled)

1 32. (cancelled)

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1 33. (canceled)

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1 34. (canceled)

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1 35. (canceled)

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1 36. (original) The method of claim 21 or 23, further comprising:

2 binning measurement data.

3

1 37. (original) The method of claim 36 further comprising:

2 averaging depth intervals and azimuthal sectors for the binned measurement data.

3

1 38. (original) The method of claim 36 or 37 further comprising:
2 processing the binned measurement data; and
3 estimating or inverting formation drilling target parameters from the processed
4 binned measurement data from a given transmitter receiver array.

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1 39. (original) The method of claim 38, further comprising:
2 making a well placement plan along with a known reservoir drilling target model;
3 defining expect measurement response for a transmitter receiver array.

4

1 40. (original) The method of claim 39, further comprising:
2 making a drilling decision to continue or modify drilling plans based on
3 differences between inverted formation drilling target parameters obtained from
4 processed measured binned data and the expected measurements response based
5 on an initial drilling plan and reservoir parameter model.

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1 41. (original) The method of claim 21, wherein
2 a transmitter source is periodic with respect to both time domain and frequency
3 domain.

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1 42. (currently amended) The method of ~~claim 21~~ claim 37, wherein
2 ~~the raw data assigned to a depth interval and azimuth sector falls fall~~ in different
3 points of ~~the a repeat cycle thus bin, the method~~ the method further comprising,

4 averaging a time series having unequal time intervals between sampled points.

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1 43. (original) The method of claim 21, where the tool rotation is not synchronized
2 with a transmitter repeat cycle.

3

1 44. (currently amended) The method of claim 21, wherein ~~the tool rotation~~ of the
2 logging tool is synchronized with ~~the~~ a transmitter repeat cycle.

3

1 45. (currently amended) The method of claim 21, further comprising:
2 holding the tool stationary while ~~the~~ raw data times are collected.

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